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April 17, 1992



Mr. Bill Fraser
U.S. Environmental Protection Agency
999 18th Street
Denver, CO 80202

RE:

EPA Contract Number 68-W9-0009, Work Assignment Number C08092

Rocky Flats Plant, West Spray Field, Operable Unit 11

Dear Bill:

PRC Environmental Management, Inc. (PRC) reviewed the revised final Rocky Flats Plant Final Phase I Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) work plan for the west spray fields (WSF), operable unit (OU) 11, dated March 16, 1992. PRC also reviewed EPA and Colorado Department of Health comments on the final version, dated December 18, 1991, to ensure that comments were adequately addressed. The document was reviewed by Lorraine Alcott and me; Richard DeGrandchamp, a PRC staff toxicologist, reviewed Section 8, the baseline human health risk assessment plan.

As discussed in our meeting of April 9, written comments are provided only for selected topics, as described below:

1. Section 2.3.4.4, Page 39. This section acknowledges that drainage sediments may differ from soils in drainages. However, the work plan proposes soil test pit sampling in both drainages and open field areas with no consideration that (1) the sediment sample medium may provide results different from the soil sample medium, and (2) soils from drainages may provide results different from soils in open fields. It is expected that soils and sediments from runoff drainages would hold higher concentrations of contaminants due to more extensive contact with contaminated water. If the RFI/RI soil data, which include sites in runoff drainages, exhibit a bimodal distribution for any analyte, the data should be examined further to determine whether the drainage sites are providing a sample population different from other site soils. This information should be used in data interpretation.

Rationale: Because of the potential differences in sample media, specific procedures for data analysis should be provided.

2. Section 4.1.4, Page 9, and Table 4-1. The objectives for characterizing the site physical features have changed. The field sampling plan (FSP) will now attempt to identify soil horizons and pertinent geologic features under the WSF. Table 4-1 has been substantially modified to accurately reflect the description of the data quality objectives (DQOs), but there are still some inconsistencies between the text and the table. The description on page 7-9 for the nature and extent of contamination does not match the level of detail shown on table 4-1. Detail is provided in the text for the other DQOs. The text should be amended to provide equivalent detail for all DQOs.

Rationale: Tables and text should be consistent.



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3. Section 7.2, Pages 9 and 10. This section indicates that borehole drilling will be initiated if contamination is found in any of the soil horizons sampled during the test pit sampling program. However, no procedures, statistical or otherwise, are described for comparison of site data with background data. Such procedures should be presented for evaluation of all Phase I RFI/RI sample data.

Rationale: The work plan should specify procedures and criteria for determining when site sample data exceed background levels.

4. Section 7.3.1, Pages 13 and 14. The specific sampling procedures for the high purity germanium (HPGe) detector-based system and the soil samples to be gathered to determine the presence of gamma and nongamma emitting radionuclides have not yet been determined. It is stated that the procedures for the sampling techniques will be provided later in a technical memorandum and a new Environmental Monitoring Division operating procedure (EMD-OP). The agencies should carefully review the documents upon submittal. Failure to provide details of the sampling plans until later may delay the start of field work.

Rationale: The field work should not begin until these memoranda and EMD-OP have been submitted and reviewed by the proper agencies.

5. <u>Table 7-1</u>. This table states that surficial soil samples collected within the WSF will be analyzed for pesticides and polychlorinated biphenyls (PCBs). These analytes are not described in Section 7.3.2 and, therefore, should be removed from Table 7-1.

Rationale: Tables and text should be consistent.

6. Section 7.3.3, Page 21, Paragraph 3. This paragraph states that the specifics of the borehole drilling program will be submitted to the agencies as a technical memorandum before drilling begins. This memorandum should be carefully reviewed upon submittal. In order to avoid any unnecessary delays in the field program, it may be appropriate to provide a basic outline of the borehole drilling program now, rather than wait until the field program has begun. Also, see comment number 4.

Rationale: Field work should not begin until all sampling procedures have been carefully reviewed.

7. Section 8. The overall scope of the risk assessment is sufficient and appropriate. It does not, however, discuss in detail what exposure assumptions will be used in the risk assessment. Presumably, these issues will be addressed in the subsequent technical memorandum.

Rationale: The risk assessment should not be conducted until specific exposure assumptions have been documented and then reviewed by CDH and EPA toxicologists.

8. <u>Section 8.1, Page 1, second bullet</u>. "Current and future use exposure scenario" should be substituted for "potential and reasonable use exposure scenario". Due to the uncertainties surrounding the future land use, current and potential future exposure assumptions should be conservative.

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Rationale: "Potential and reasonable" does not adequately cover potential exposure scenarios.

9. Section 8.2, Page 4. The likelihood of exposure actually occurring should not be considered a criterion to eliminate a chemical from the list of chemicals of possible concern. This judgment should be made only after the exposure assessment has been completed. It is best considered in the risk characterization.

Rationale: It is inappropriate to use the likelihood of exposure as a criterion for selecting chemicals of potential concern.

A WordPerfect 5.1 file of this letter is included on the attached diskette. Please call me or Lorraine at 295-1101 if you have any questions.

Sincerely,

PRC Environmental Management, Inc.

Anne Leibold

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cc: Martin Hestmark, EPA
Lorraine Alcott, PRC
PRC File